

CERES Education and Outreach Update

Lin Chambers, EPO SD Lead NASA LaRC, Hampton, VA

The S'COOL - MY NASA DATA Team:

Educators, Graphic Artists,
Writers, Editors,
Programmers, DBAs,
Managers, Systems
Admins, Translators
(SSAI STARS II)

Brian Bresina
Camelia Deller
Damien Josset
Daniel Oostra
Jay Madigan
Jennifer Lapan
Karen Brown
Katie Bethea

Kristina Ruhlman
Penny Oots
Preston Lewis
Sarah Crecelius
Susan Moore
Tim Marvel
Tina Coleman
Tina Rogerson

<https://mynasadata.larc.nasa.gov>

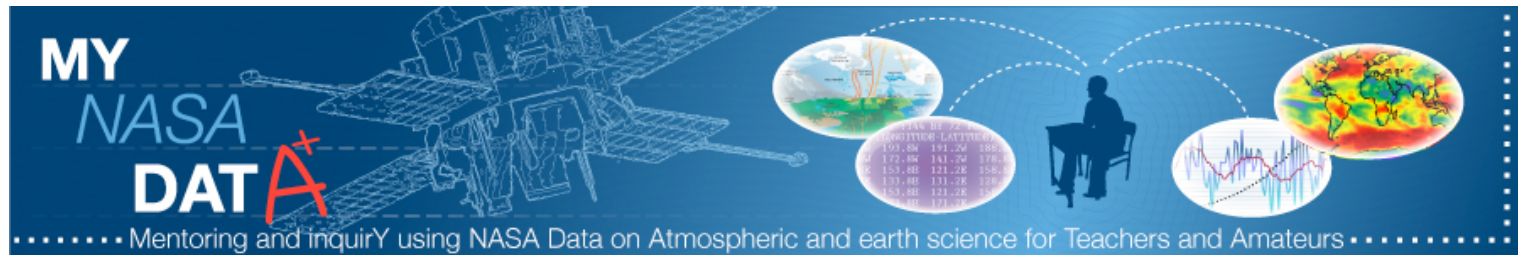
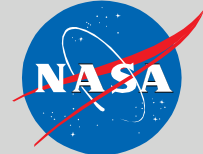
<https://scool.larc.nasa.gov>

<https://science-edu.larc.nasa.gov>

Email us at: scool@lists.larc.nasa.gov or mynasadata@lists.larc.nasa.gov

CERES Science Team Meeting

MY NASA DATA: Overview



- Involve students in real science.
- Enable K-12 teachers and students, as well as citizen scientists, to explore the large volumes of data that NASA collects about the Earth from space.
- *Students use scientific inquiry and math skills as they access and display microsets of the Earth System.*

MY NASA DATA Provides access to CERES:

Lessons

Projects/Ideas

Data Visualization

Workshops/Training

Partnership with Educators

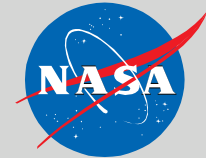
Educational Resources

A Climate Education Portal

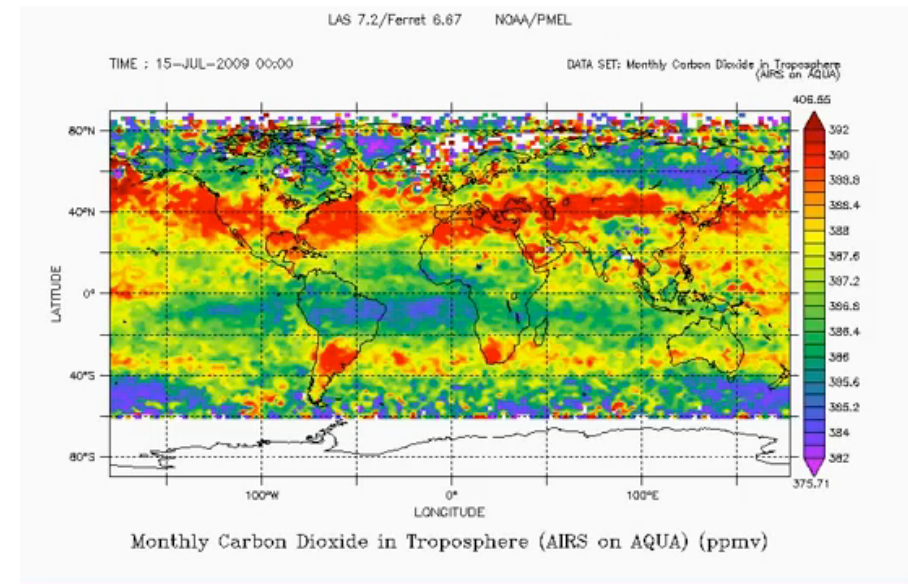
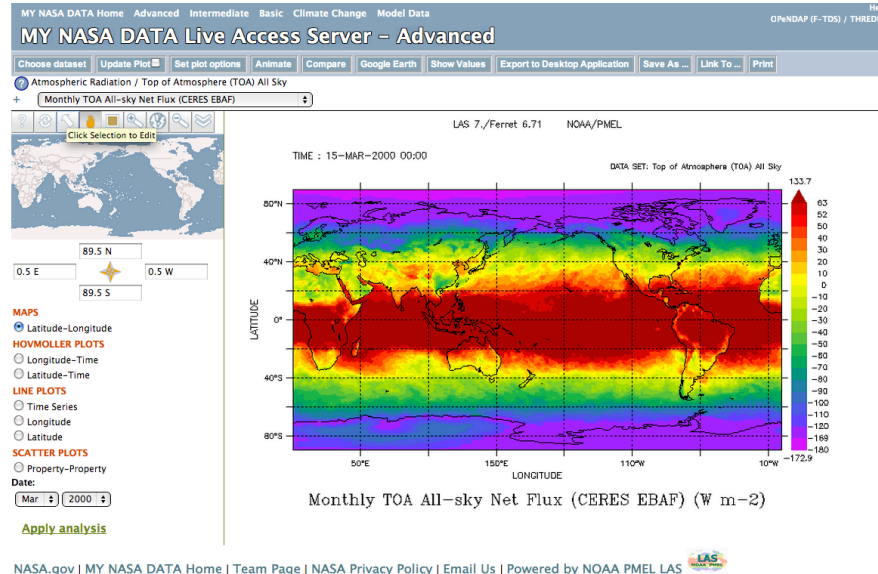
Cross-mission EPO tool

Access to Scientists

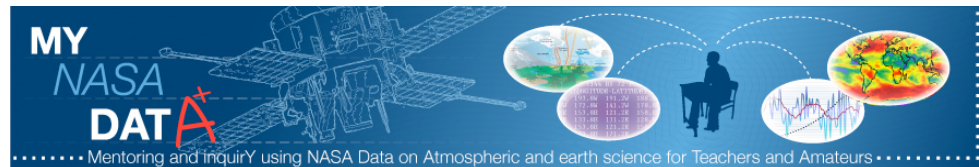
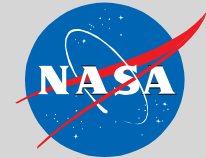
A True Scientific Experience



- CERES Data Visualization
- New CALIPSO, AMSR-E, MISR Data
- New Depth/Animations Functions
- Over 60 new parameters added, and more on the way



National Aeronautics and Space Administration
MY NASA DATA Website Make Over



What is MND?

MY NASA DATA (MND) is a tool that allows anyone to make use of satellite data that was previously unavailable. Through the use of MND's Live Access Server (LAS) a multitude of charts, plots and graphs can be generated using a wide variety of constraints. This site provides a large number of lesson plans with a wide variety of topics, all with the students in mind. Not only can you use our lesson plans, you can use the LAS to improve the ones that you are currently implementing in your classroom.

UNDER CONSTRUCTION
Visit the old site: MY NASA DATA - Old Site

MY NASA DATA

Home

Live Access Server

Lesson Plans

Data Sources

Mission

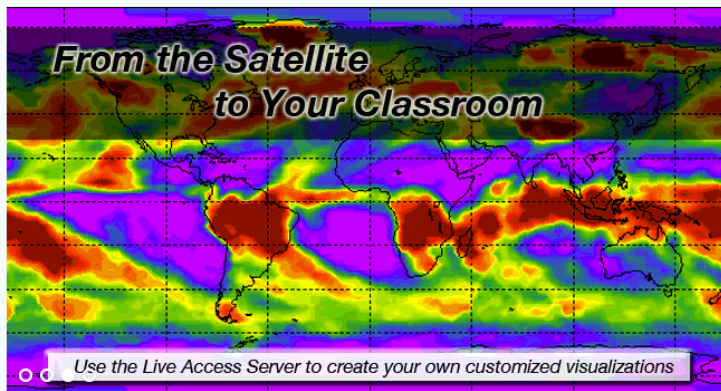
NASA Mission Advert

Observe Your World

Conferences

Meet the Team

Google Custom Search



News from MY NASA DATA, the Science Directorate, and S'COOL

[NASA Educators Online Network is offering Free Webinar Series throughout the Month of October \(2012\).](#)

[It's here, Earth Science Week has arrived and We have the updated schedule of events!](#)

[A big fish in a small pond no longer...](#)

[Meet the Team: Bryan Fabbri](#)

[NASA Earth Science Week: Discovering Careers in the Earth Sciences](#)

60 likes, 20 +1's in under a week

MY NASA DATA(MND) has a new look!
The MND team has worked hard to put a new spin on data visualization, science concepts, and educational resources.

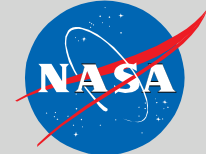
- Easy to navigate
- Accessible
- Geared towards the user

When you visit our site you can discover and enjoy the resources that are most relevant to your needs. Content is divided into 5 main categories:

- Educators (3 grade divisions/ related content)
- Students (3 grade divisions/ related content)
- Citizen Scientists
- Researchers
- Using MND

National Aeronautics and Space Administration

MY NASA DATA: CERES, Aqua, and Terra



- Lessons ~30
- Projects
- Multi-media
- Data
- Live Access Server
- Albedo, Fluxes (EBAF & TRMM)
- Surface Scene Type
- CO2 AIRS on AQUA

Pageviews
38.51%
20,009 vs 14,446

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

+ Visit NASA.gov
+ Visit the ASDC

Search

MY NASA DATA

..... Mentoring and Inquiry using NASA Data on Atmospheric and earth science for Teachers and Amateurs

+MY NASA DATA HOME +DATA ACCESS +LESSON PLANS +COMPUTER TOOLS +SCIENCE FOCUS

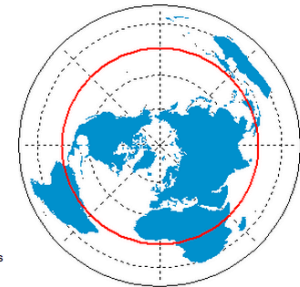
[View lesson with Standards](#) [View lesson without Standards](#)

Circle the Earth - Explore Surface Types on a Journey around Earth

Purpose: To use CERES percent coverage surface data with a world map in locating landmasses and bodies of water at Earth's Equator.

Grade Level: 4 - 12

Estimated Time for Completing Activity: One 50-minute class period



Learning Outcomes:

- Locating map locations using latitude and longitude coordinates
- Applying percentage to determine land surface characteristics
- Using a microset of satellite data to investigate surface characteristics

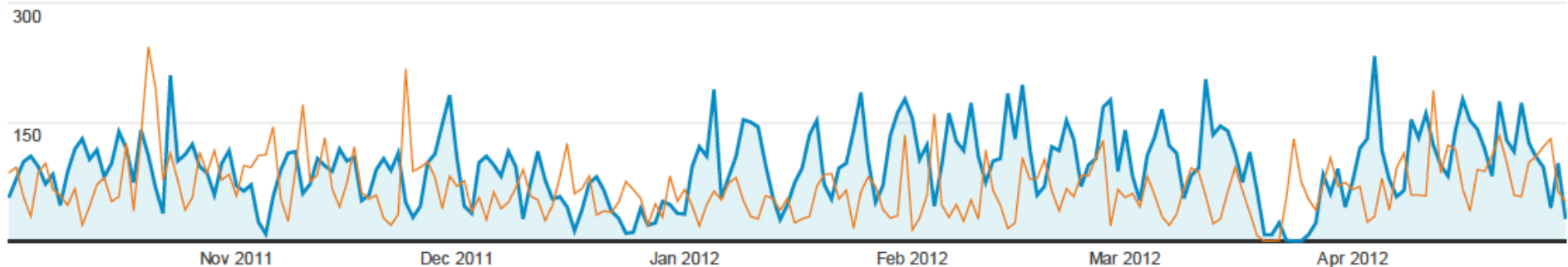


National Standards:

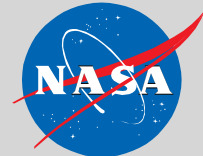
- **Geography:** Places and Regions
- **Geography:** The World in Spatial Terms
- **Math:** Algebra
- **Math:** Connections
- **Math:** Geometry
- **Math:** Number and Operations
- **Science Content:** A Science as Inquiry
- **Science Content:** D Earth and Space Science
- **Science Content:** E Science and Technology

Lesson Content: Current vs. Last Period

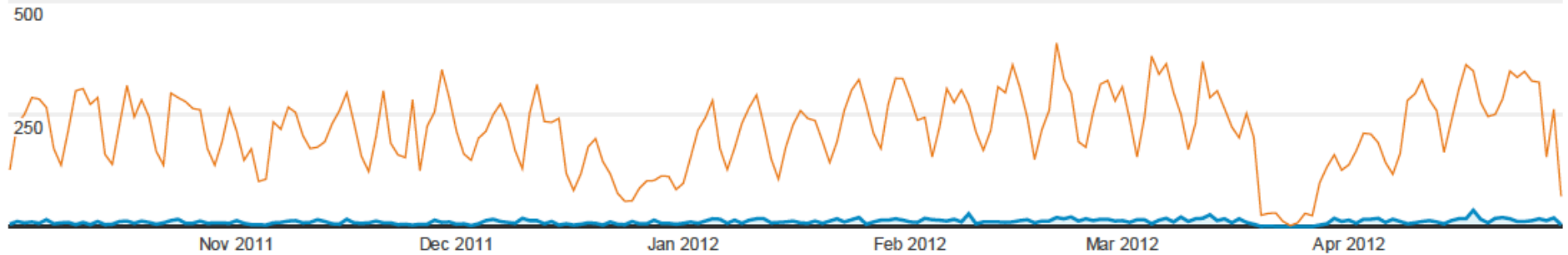
● Pageviews ● Pageviews



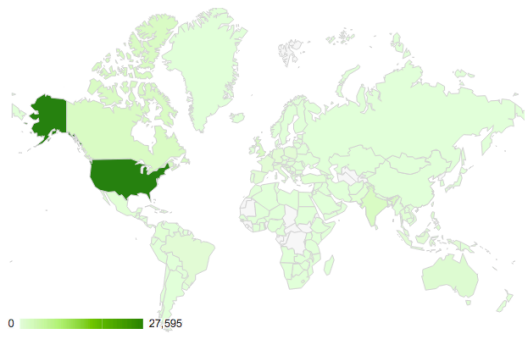
National Aeronautics and Space Administration
MND Metrics – FY2012



● Visits (Mobile Traffic) ● Visits (All Visits)



■ **84.93% New Visitor**
 36,153 Visits
 ■ **15.07% Returning Visitor**
 6,417 Visits



Visits



Mobile Traffic: **2,229**



All Visits: **45,897**

1. US
2. India
3. Canada
4. UK
5. Australia



Visits: -7.71%
 42,570 vs 46,126



Unique Visitors: -4.32%
 36,549 vs 38,198



Pageviews: -7.32%
 94,350 vs 101,798



Pages / Visit: 0.43%
 2.22 vs 2.21



Avg. Visit Duration: -9.73%
 00:01:47 vs 00:01:59

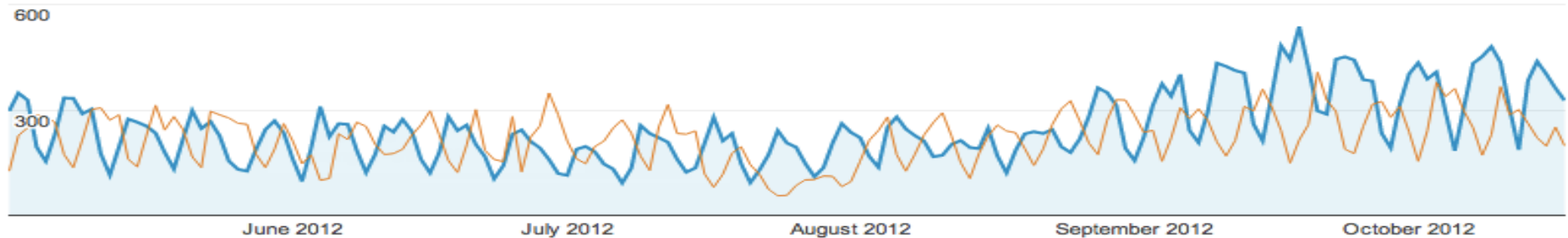


Bounce Rate: -10.85%
 54.15% vs 60.74%



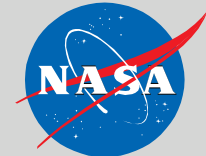
% New Visits: 3.69%
 84.88% vs 81.86%

● Visits (May 1, 2012 - Oct 18, 2012) ● Visits (Oct 1, 2011 - Apr 30, 2012)



National Aeronautics and Space Administration

Student Cloud Observations Online (S'COOL)



- Education and Public Outreach arm of CERES
- Backbone of Terra/Aqua formal education effort
- A simple way to involve K-12 students in authentic science
- A source of validation data for the CERES cloud retrievals

<http://scool.larc.nasa.gov>

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Find it @ S'COOL: Search

STUDENTS' CLOUD OBSERVATIONS, ON-LINE

S'COOL OBSERVATION 100,000

HOME FOR PARTICIPANTS FIND OUT MORE FOR TEACHERS FOR KIDS Rover Cloud Observations

Welcome

The S'COOL Project involves students (ages 5-20+) in real science, making and reporting ground truth observations of clouds to assist in the validation of NASA's CERES satellite instruments.

Clouds are an important part of our atmosphere, and scientists are studying how they affect our weather and climate. S'COOL observations provide one more piece of the puzzle.

Participants 1) obtain satellite overpass schedules, 2) observe and report clouds within +/-15 minutes of the satellite's passage, 3) compare and classify the agreement between the ground and satellite views.

Teachers are welcome to register with the S'COOL project to join their students with others around the world who are learning about clouds. Individuals can also contribute observations through the S'COOL Rover area of the website.

Happy cloud observing!

S'COOL Spotlight

Francés | Español | Deutsch | Italiano | 中文

The 100,000th S'COOL Observation was Received on 11/11/11
+ Read the Full Story

Number of unique page hits since 20 May 2009: 37809

News & Updates

04.13.12: MY NASA DATA Featured Lesson: The Reason for the Seasons
+ Read More

04.13.12: NASA Planning Major Airborne Scientific Study in Southeast Asia
+ Read More

04.13.12: Congratulations Carlos Alberto Caycedo Vega!
+ Read More

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+ USA.gov

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Page Curator: Jay Madigan
NASA Official: Lin Chambers
+ Contact S'COOL
Last updated: 04/12/2012 19:24:31

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Find it @ S'COOL: Search

STUDENTS' Cloud Observations On-line

HOME FOR PARTICIPANTS FIND OUT MORE FOR TEACHERS FOR KIDS ROVER

FOR PARTICIPANTS >> 1. When to Observe 2. What to Observe 3. Report Form 4. Database

FOR PARTICIPANTS

Get Overpass Times Report Data Explore Data Register to Participate Need Help?

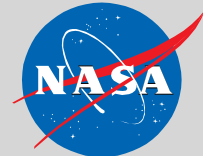
Top Observers Top Observers w/ corresponding satellite data Top 25 Yearly Observers

+ Visit NASA.gov
+ NASA Privacy, Security, Notices
+ USA.gov

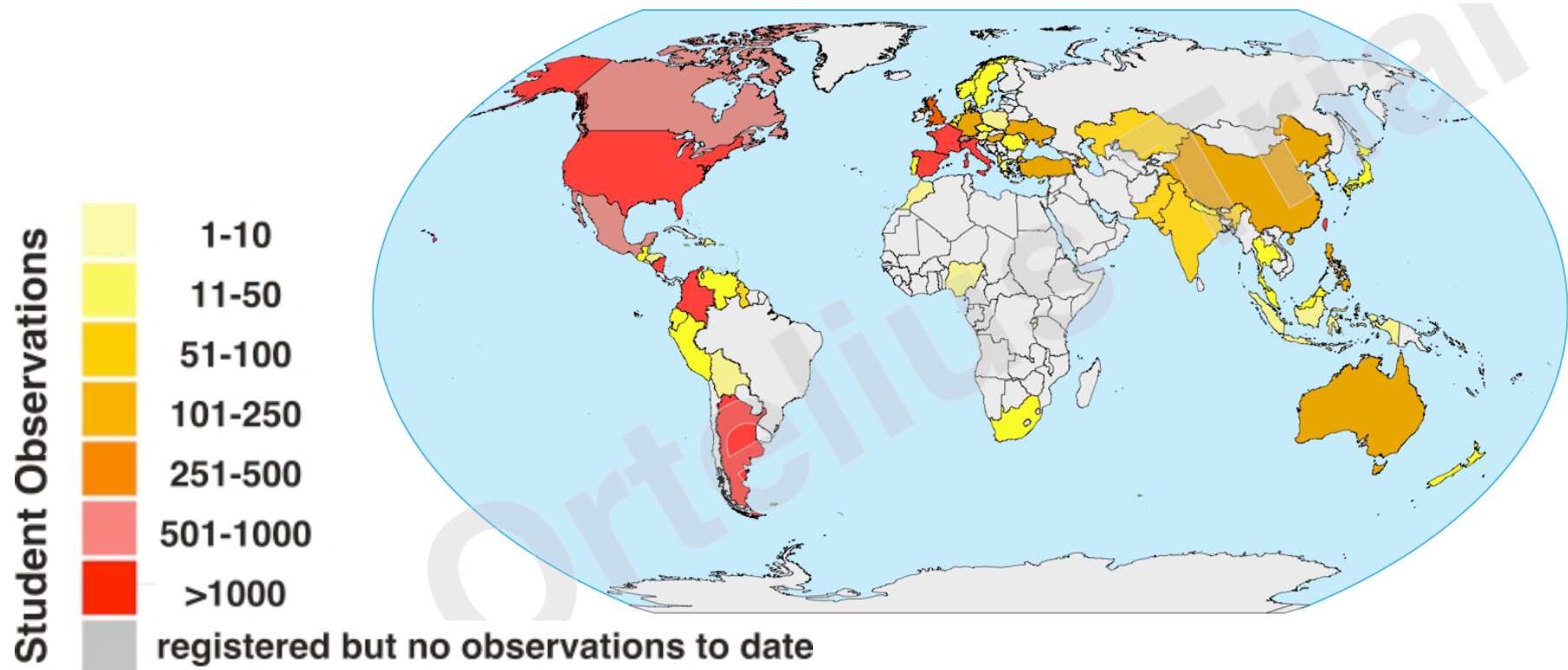
+ Comments or Questions?
Select Language
Powered by Google Translate

Page Curator: Jay Madigan
NASA Official: Lin Chambers
+ Contact S'COOL
Last updated: 04/03/2012 15:01:27

S'COOL Project Statistics



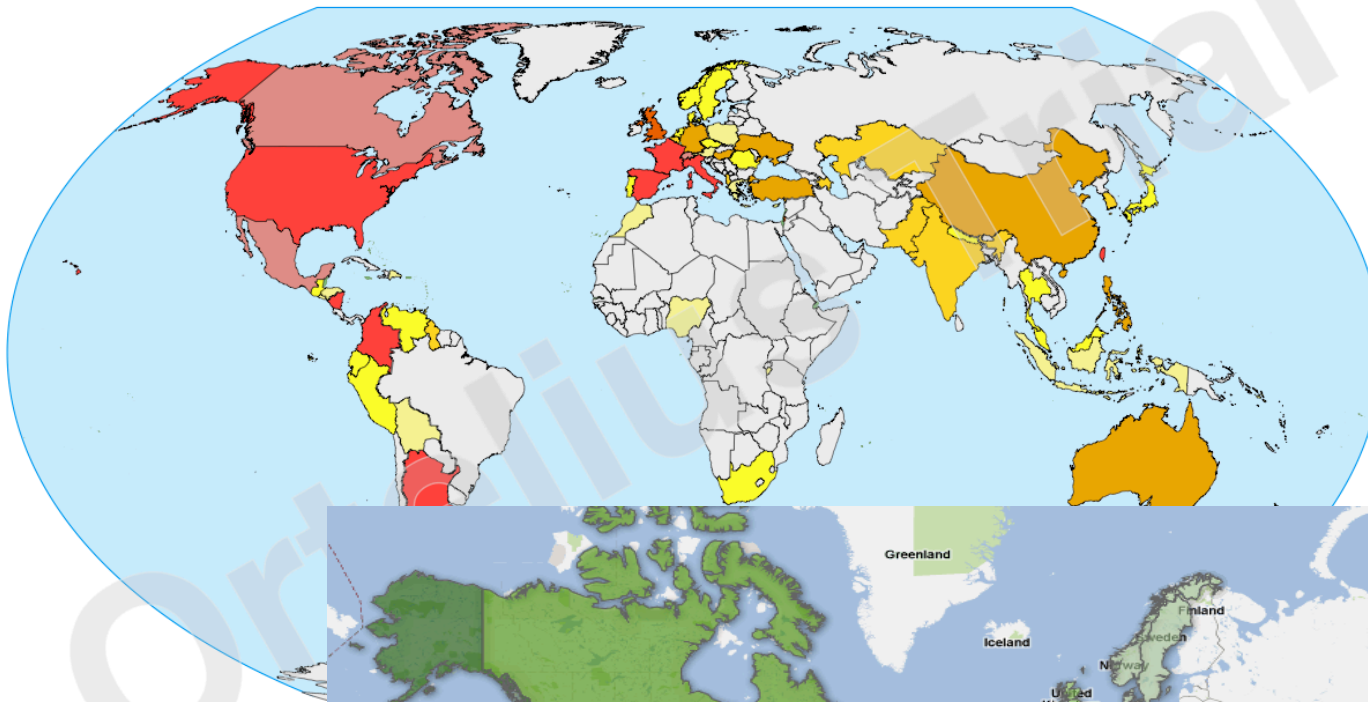
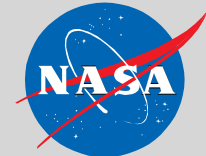
- > 111,500 observations from 63 countries and all 50 states
New countries participation (Rover): Nigeria, Malaysia, and Honduras
- 76% of S'COOL participants are from USA, 47% of our collected observations are from the US
- > 3,710 registered participants from 83 countries



Map as of Oct. 2012

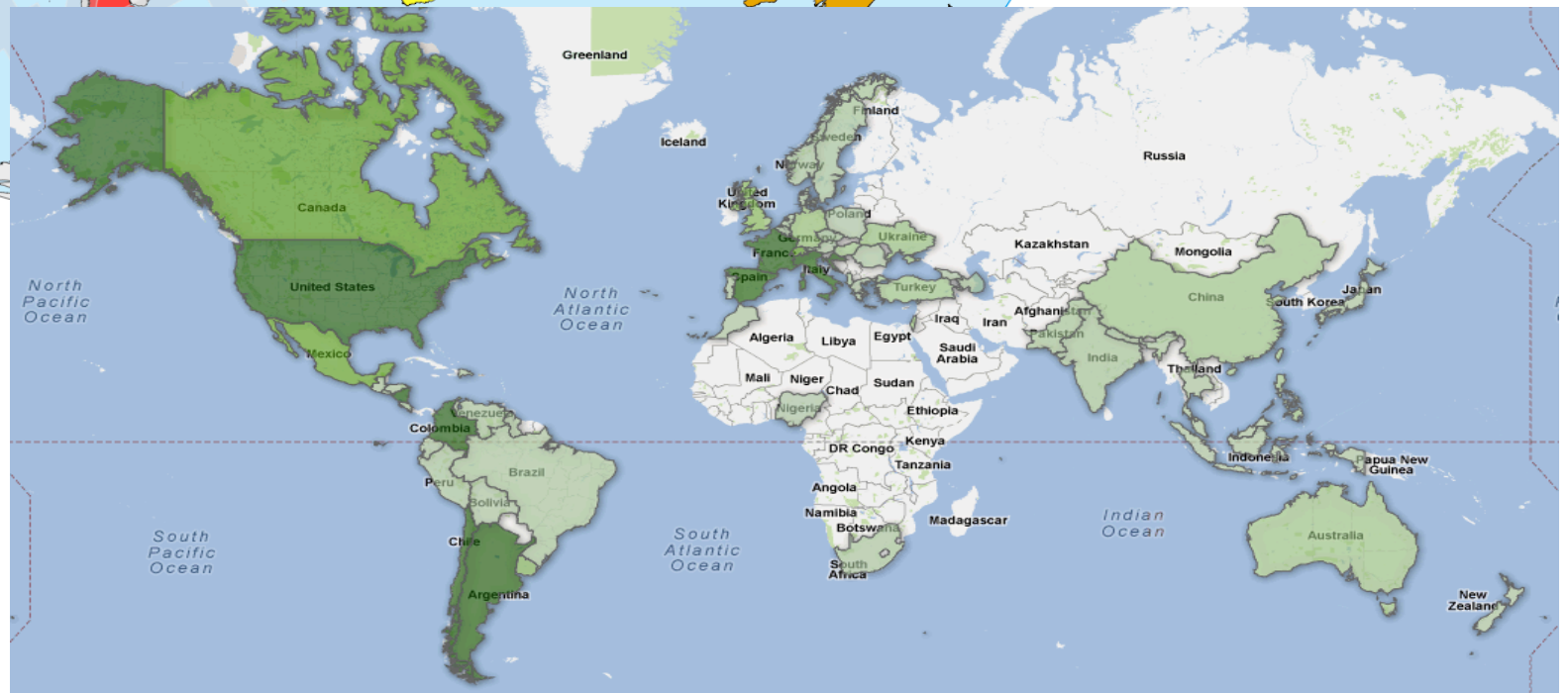
National Aeronautics and Space Administration

S'COOL Project Statistics

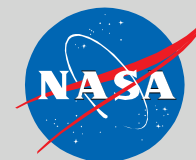


Left: Ortelius Software

Below: Google fusion
Tables



Impact Measures



States “Top Five”

- PA 12%
- VA 4%
- CA 3%
- PR 2%
- NH 2%

Countries “Top Five”

- USA 50% ↑
- Colombia 25% ↑
- Argentina 5%
- France 4% ↓
- Nicaragua 4%

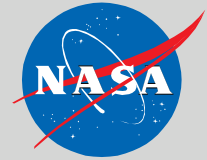
States “Bottom Five”

- North Dakota 14
- DC 13
- Virgin Islands 9
- Guam 6
- Northern Marianas 0

Stats This Year

- S’COOL Registrations 312
- ROVER Recommendations 39
- Material 36

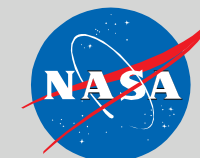
*States, no change since last meeting



Database of observations - as of April 29, 2012

- > 63,000 satellite correspondences (963 match both)
For 56% of ground observations
- > 3,710 registered participants
35% submitted data
- 83 countries
 - data from 63 countries (75%)
- Recent feature: S'COOL has already begun collecting NPP data for comparison; 1,386 ground observations where NPP was selected as the satellite passing over

National Aeronautics and Space Administration
S'COOL Metrics – FY2012



● Visits (Oct 1, 2011 - Oct 1, 2012) ● Visits (Sep 29, 2010 - Sep 30, 2011)



23,862 people visited this site



Visits: 56.26%

34,567 vs 22,122



Unique Visitors: 81.75%

23,862 vs 13,129



Pageviews: 133.85%

69,941 vs 29,909



Pages / Visit: 49.66%

2.02 vs 1.35



Avg. Visit Duration: 39.64%

00:02:01 vs 00:01:27



Bounce Rate: -16.50%

66.44% vs 79.57%



% New Visits: 16.52%

68.11% vs 58.45%



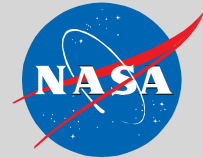
68.14% New Visitor

23,554 Visits

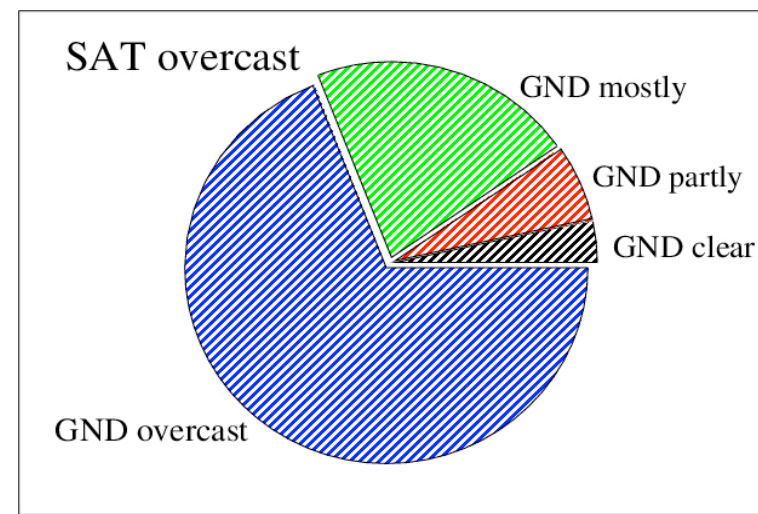
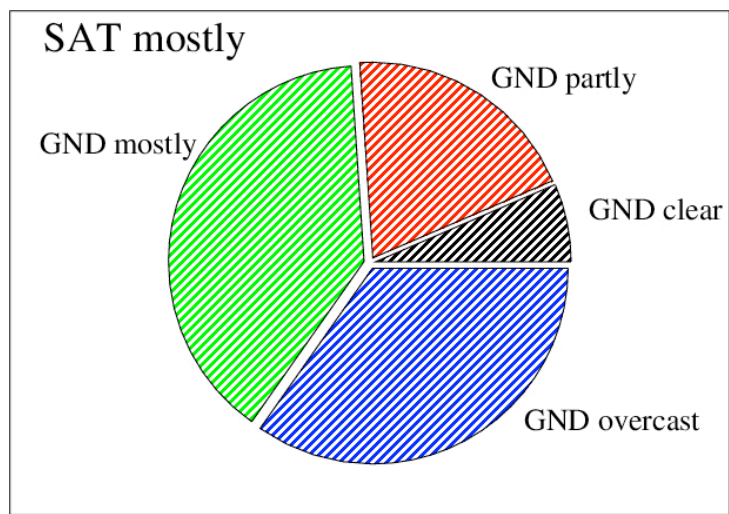
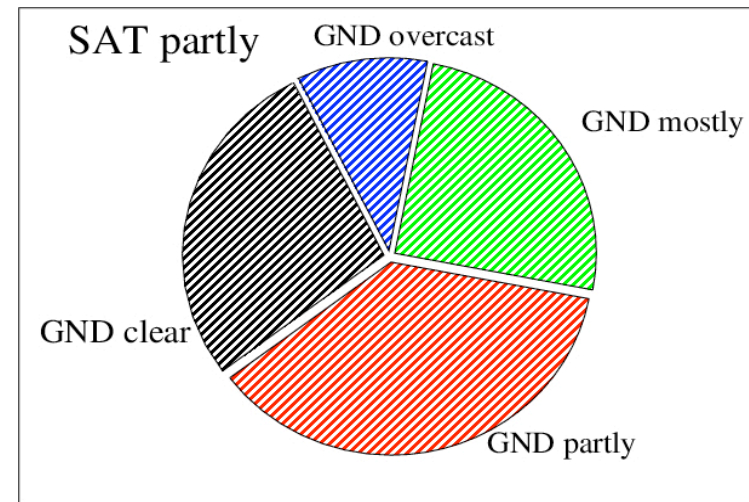
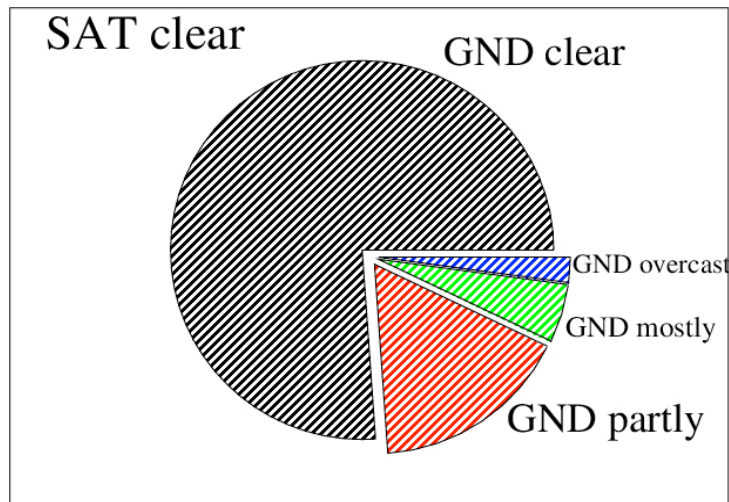
31.86% Returning Visitor

11,013 Visits

S'COOL Data Analysis

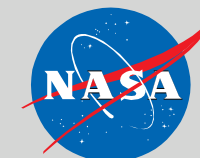


Comparison between Ground Observations and Terra Satellite data. (37997 obs.)



Note: SAT= Satellite results and GND = Ground Obs.

*Analysis: Alice Fan & Dr. Bing Lin

S'COOL Data Analysis

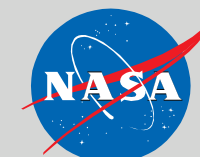
Comparison between Ground Observations and Terra Satellite data. (37997 obs.)

SAT	GND				
	Cloud Cover	Clear (< 5%)	Partly (5-50%)	Mostly (50-95 %)	Overcast (> 95%)
	Clear (< 5%)	5329	1175	348	150
	Partly (5-50%)	2341	3089	2100	880
	Mostly (50-95%)	668	2027	4053	3592
	Overcast (> 95%)	424	755	2610	8455

*Analysis: Alice Fan & Dr. Bing Lin

- **Agreement 55% of the time**
- One Class off, 36% of the time
- Total 91%
- Consistent with our analysis from 2004

S'COOL Data Analysis, Next Steps



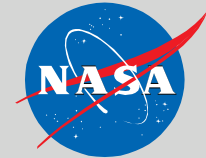
Comparison between Ground Observations and Terra Satellite data. (37997 obs.)

Layer Comparison	L	M	LM	H	LH	MH	LMH
GND	44.51%	11.43%	10.43%	9.05%	7.91%	2.41%	14.27%
SAT	9.25%	8.88%	16.89%	11.33%	1.20%	36.67%	15.77%

*Analysis: Alice Fan & Dr. Bing Lin

- **44.51%** of GND and **9.25%** of SAT are LOW clouds
- GND classify more low clouds and SAT classify more middle and high clouds
- Combining both provides more accurate observation

GLOBE Update to S'COOL Report Form



Student Cloud Observations On-Line CLOUD REPORT FORM

Observer Information: Rover Nickname/Login ID: _____ Email: _____
Date (ex. 2011 09 20): Year ____ Month ____ Day ____ Satellite: _____
Local Time (24 Hour Clock: ex. 14 26): Hour ____ Minute ____ Universal Time: Hour ____ Minute ____

Make A Cloud Observation!

① **Total Cloud Cover:** ☐ No Clouds ☐ Clear(0-10%) ☐ Isolated(10-25%) ☐ Scattered(25-50%) ☐ Broken(50-90%) ☐ Overcast(90-100%)
Sky Visibility: ☐ Unusually Clear ☐ Clear ☐ Somewhat Hazy ☐ Very Hazy ☐ Extremely Hazy
Sky Color: ☐ Deep Blue ☐ Blue ☐ Light Blue ☐ Pale Blue ☐ Milky

② Number of Short Lived ____ Number of Persistent ____ Number of Persistent Spreading ____

③ **What do you see? High Level Clouds**

Cloud Type: <input type="checkbox"/> Cirrus <input type="checkbox"/> Cirrocumulus <input type="checkbox"/> Cirrostratus	Cloud Cover: <input type="checkbox"/> Clear (0-10%) <input type="checkbox"/> Isolated (10%-25%) <input type="checkbox"/> Scattered (25%-50%) <input type="checkbox"/> Broken (50%-90%) <input type="checkbox"/> Overcast (>90%)	Visual Opacity: <input type="checkbox"/> Opaque <input type="checkbox"/> Translucent <input type="checkbox"/> Transparent
---	---	---

④ **What do you see? Mid Level Clouds**

Cloud Type: <input type="checkbox"/> Altostratus <input type="checkbox"/> Altopcumulus	Cloud Cover: <input type="checkbox"/> Clear (0-10%) <input type="checkbox"/> Isolated (10%-25%) <input type="checkbox"/> Scattered (25%-50%) <input type="checkbox"/> Broken (50%-90%) <input type="checkbox"/> Overcast (>90%)	Visual Opacity: <input type="checkbox"/> Opaque <input type="checkbox"/> Translucent <input type="checkbox"/> Transparent
---	---	---

⑤ **What do you see? Low Level Clouds**

Cloud Type: <input type="checkbox"/> Fog <input type="checkbox"/> Nimbostratus <input type="checkbox"/> Cumulonimbus <input type="checkbox"/> Stratus <input type="checkbox"/> Cumulus <input type="checkbox"/> Stratocumulus	Cloud Cover: <input type="checkbox"/> Clear (0-10%) <input type="checkbox"/> Isolated (10%-25%) <input type="checkbox"/> Scattered (25%-50%) <input type="checkbox"/> Broken (50%-90%) <input type="checkbox"/> Overcast (>90%)	Visual Opacity: <input type="checkbox"/> Opaque <input type="checkbox"/> Translucent <input type="checkbox"/> Transparent
--	---	---

⑥ **What do you observe? Ground Measurements**

Surface Cover: (Mandatory) Yes No <input type="checkbox"/> <input type="checkbox"/> Snow/Ice <input type="checkbox"/> <input type="checkbox"/> Standing Water <input type="checkbox"/> <input type="checkbox"/> Muddy <input type="checkbox"/> <input type="checkbox"/> Dry ground <input type="checkbox"/> <input type="checkbox"/> Leaves on Trees <input type="checkbox"/> <input type="checkbox"/> Raining/Snowing	Surface Measurements: <i>(Optional – you may submit any or all)</i> Temperature: ____ °C or °F Barometric Pressure: (Select One) ____ hPa <input type="checkbox"/> psi <input type="checkbox"/> inches Hg <input type="checkbox"/> mb <input type="checkbox"/> atm <input type="checkbox"/> torr (mm Hg) Relative Humidity: ____ %
--	--

Notes:

Updated the Report Form:

- New format
- One report form for both S'COOL and ROVER
- Addition of GLOBE components sky visibility and sky color to promote future compatibility of S'COOL and GLOBE data sets.
- New Cloud Fraction Categories.

Observe Your World!



Blog Highlighting the NASA CERES S'COOL Project, the MY NASA DATA Project, and the Science Directorate Outreach Efforts.



May 1, 2012 - Oct 18, 2012	1,246
Oct 1, 2011 - Apr 30, 2012	2,126
% Change	-41.39%

● Pageviews (May 1, 2012 - Oct 18, 2012) ● Pageviews (Oct 1, 2011 - Apr 30, 2012)

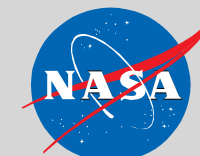


Pages views and visitors to the blog show the summer/back-to-school lag. At the same time this lag has prompted an evaluation and new implementation plan for the blog.

National Aeronautics and Space Administration

S'COOL Observations on MAGIC

Marine ARM (Atmospheric Radiation Measurement) GPCI Investigation of Clouds



Observe your World

NASA Science for you: S'COOL, MY NASA DATA and the Science Directorate

Oh, Oh, it's MAGIC...

August 31, 2012

This post is also available in: [Spanish](#)

Ernie Lewis of Brookhaven National Laboratory, Warren Wiscombe of NASA's Goddard Space Flight Center, and their team aren't referring to the 1974 Pilots hit.

MAGIC refers to the Marine ARM (Atmospheric Radiation Measurement) GPCI Investigation of Clouds (MAGIC). These two principal investigators are aiming to improve today's climate models by understanding the boundary layer clouds and related climate phenomena off the west coast of the United States. The Horizon Lines container ship *Spirit* will carry a group of instruments, known as the MAGIC instruments, between Los Angeles, California and Honolulu, Hawaii measuring properties of clouds, precipitation, aerosols, and radiation, and atmospheric and oceanic conditions, continuously. The round trips will take place between October 2012 and September 2013.

Note from the PIs, "We are grateful to Horizon Lines and the Captain and crew for making this project possible, and are excited to see what will be learned concerning marine boundary layer clouds."

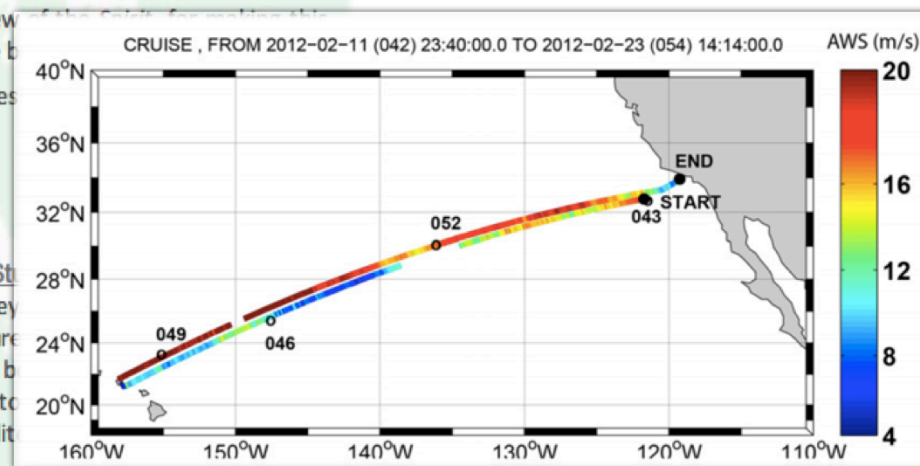
Get a first hand account and watch for more PI insights as the project progresses.

For more MAGIC information and highlights please visit:

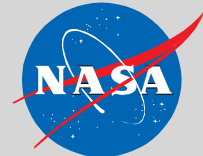
<http://www.bnl.gov/envsci/ARM/MAGIC/>

<http://science-edu.larc.nasa.gov/SCOOL/Rover/>


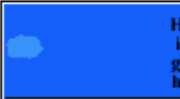
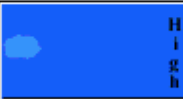







During MAGIC, the research team will be taking cloud observations for the Ship-based Observations On-Line (S'COOL) Project. Alumni marine observer (ROVER), Mike Reynolds of the University of Texas at Dallas, will be on board to help. A total sky imager, which takes pictures of the sky to document cloud fields, will be part of the AMF2 instrument group. We will be comparing our images to our S'COOL satellite data for the same place and time (similar to the comparison that observers receive comparing their ground observations to corresponding satellite data). Stay tuned forward to with the start of MAGIC, stay tuned to the blog for updates!



S'COOL Observations on MAGIC



User Name	Age	Skill Level	Latitude	Longitude	City	State	Country
MAGIC	Adult	Expert	21.31	-157.87	HORIZON SPIRIT		USA

Ground Observation - 4785				Aqua Satellite				
Date: 2012-09-14		Local Time: 13:40:00	Universal Time: 23:30:00	Date: 2012-09-14		Universal Time: 23:42:00		
Opacity	Cloud Cover	Type	Visualization		Altitude (km)	Opacity	Cloud Cover	Phase Temp(K)
Transparent	Clear (0% to 5%)	Cirrus			6.36	Transparent 0.87	Clear (0% to 5%) 1.39	ice 266.13
Opaque	Partly Cloudy (5% to 50%)	Altostratus			2.98	Translucent 6.03	Partly Cloudy (5% to 50%) 35.95	mixed 282.26
Opaque	Partly Cloudy (5% to 50%)	Stratocumulus			1.62	Translucent 5.59	Partly Cloudy (5% to 50%) 23.99	water 286.63
Contrails: Persistent: 0 Short-Lived: 0						View Corresponding Satellite Images Aqua MODIS New! LANCE   LANCE Tutorial S'COOL MODIS Guide		
Surface Observations Snow/Ice Not Observed Standing Water Yes Muddy Not Observed Dry Ground Not Observed Leaves on Trees Not Observed Raining or Snowing? No Temperature 26.20 C Barometric Pressure 1012.40 hPa Relative Humidity 55.00								
				Cloudsat Quick Look Cloudsat Tutorial CALIPSO Quick Look CALIPSO Tutorial Need Observation Help?				

Comments: Leaving port. Clouds are clearing quickly.



- The web is going **mobile**.
- Housed on the new redesign of science-edu pages.
- **CITRUS** – Cloud Id Tool for Students
 - Dichotomous Key
 - Cloud pic to map
 - Weather
 - Chart
 - METAR Integration
 - Picture Analysis?



CERES S'COOL Cloud Identification Tool

S'COOL Students' Cloud Observations On-line

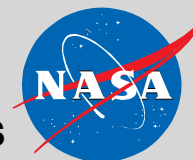
NOTE: BETA TEST VERSION

Warning: this application will load extremely slowly on most mobile devices. It has not been optimized for any device.

	1. Is it raining?	Yes ↗
	2. Is your cloud low-lying or touching the ground and reducing visibility?	Yes ↗
	3. Was the cloud left as a trail behind a plane or a semi straight line that is bright white becoming more transparent as it fades?	Yes ↗
	4. Is it a high wispy cloud, like a horse's tail?	Yes ↗
	5. Is it flat and layered, puffy and bumpy, or some of both?	Yes ↗

<http://www.google.com/ig/api?weather=23188&hl=en>
Weather conditions for:23188

Current Conditions: Overcast
Temp F: 64
Temp C: 18
Humidity: 68%
Wind: S at 9 mph



S'COOL/MND Outreach: Ambassadors, Conferences, Workshops



NSTA Regional Conference, KY:

Ambassador-Brandon Hargis (teacher from KT) presented S'COOL and MND

NSTA Regional Conference, GA:

Team Member-Preston Lewis presenting S'COOL and MND

NSTA Regional Conference, AZ:

Team Member-Tina Rogerson presenting S'COOL and MND

Upcoming:

- Virginia Association of Science Teachers Meeting
- AISES National Conference 2012
- NSTA National Conference 2012
- AGU 2012/AGU GIFTS Teachers Workshop
- AMS National Conference 2013



**AMERICAN INDIAN SCIENCE
AND ENGINEERING SOCIETY**
A Universe of Opportunities



Outreach Involvement



- Woodrow Wilson High School (Portsmouth)
 - Teacher Professional Development
 - Student Training Workshop
- American Nicaraguan School (Nicaragua)
 - Skype, Project Overview and Instrument Introduction

Other Events:

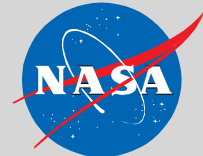
- Provide activities/material for Science Action Club, afterschool program
- Langley 95th Open House
- Earth Science Week readings
- Astronomical Society of the Pacific
- Public Participation in Scientific Research
- NASA Explorer Schools Research Experience
- GLOBE Workshop
- LEARN Workshop

**Thanks to all
who participated
or presented
S'COOL or MND!**



National Aeronautics and Space Administration

Outreach Team at the Langley 95th Open House



Thank you to the large group of SD employees who supported the NASA Langley 95th Anniversary Open House!

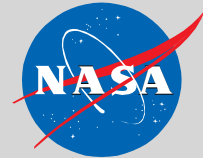


10,000 visitors during the Open House with 700 through the Pearl Young!



Science Directorate showcased in the Pearl Young Theater @ Langley's 95thn Open House: September 22, 2012

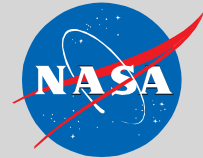




New Member to the S'COOL Team



Tina Coleman received her B.S. in Human Learning K-8 and her M.S. in Science Education with an emphasis in Earth and Space Science from the University of Tennessee at Martin. She has taught middle school science for the past fifteen years in the state of Tennessee, prior to which she taught for three years in the state of Kentucky. During the past two years she has served as President of the Tennessee Earth Science Teachers Association in addition to serving on the Tennessee State Leadership Team for the development of the Next Generation Science Standards (NGSS). Currently she is a contractor in educational outreach for the NASA LaRC Science Directorate and is working with the MY NASA DATA and S'COOL teams as education specialist focusing on the development of science curriculum resources.



- **Make S'COOL Rover observations!**
- **Present S'COOL/MND** – scripted materials available
- **Dig into Data**-new opportunity within data analysis (CALIPSO, CloudSat)
- **Translation Services** needed!
- **Serve as resource** for scientific content questions sent in by participants
- **Connect with observers** in every state and >83 countries
- **Contact** any one of the team members for posting to the blog or other information
 - scool@lists.nasa.gov or mynasadata@lists.nasa.gov

<https://mynasadata.larc.nasa.gov>

<https://scool.larc.nasa.gov>

<https://science-edu.larc.nasa.gov>

Email us at: scool@lists.larc.nasa.gov or mynasadata@lists.larc.nasa.gov

CERES Science Team Meeting